

A RADIO ARCHITECTURE FOR USE WITH FREQUENCY DIVISION DUPLEXED SYSTEMS

5

ABSTRACT OF THE DISCLOSURE

A radio such as a frequency division duplex (FDD) radio (100) has a first local oscillator (LO₁I and LO₁Q) that is set to coincide with the transmitter section's (126) center frequency or a sub-harmonic thereof. In this way, after the first down-conversion, the transmit interferer is converted to DC, where it can be effectively removed using a simple high-pass filter (110, 112) such as a DC blocking capacitor. Image rejection is achieved by the use of a two-step down-conversion approach that uses quadrature local oscillators to implement a single-sideband down-converter.

D **E** **F** **G** **H** **I**